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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/023,071	12/17/2001		Henricus Antonius Wilhelmus Van Gestel	NL000699	3723
24737	7590	03/09/2005		EXAMINER	
PHILIPS IN P.O. BOX 30		CTUAL PROP	KNEPPER, DAVID D		
BRIARCLIFF MANOR, NY 10510				ART UNIT	PAPER NUMBER
		-		2654	<del></del>

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
Office Action Summary	10/023,071	VAN GESTEL, HENRICUS ANTONIUS WILHELMUS				
omoc Aodon Gummary	Examiner	Art Unit				
	David D. Knepper	2654				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address –				
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status ·						
1)⊠ Responsive to communication(s) filed on 27 O	ctober 2004.					
	action is non-final.					
3) Since this application is in condition for allowar	,—					
Disposition of Claims						
4) ☐ Claim(s) 1-20 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-20 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	vn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomplicant may not request that any objection to the Replacement drawing sheet(s) including the correct	epted or b) objected to by the Idrawing(s) be held in abeyance. See	e 37 CFR 1.85(a).				
11)☐ The oath or declaration is objected to by the Ex						
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents</li> <li>2. Certified copies of the priority documents</li> <li>3. Copies of the certified copies of the priority application from the International Bureau</li> <li>* See the attached detailed Office action for a list</li> </ul>	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage				
Attachment(s)						
Attachment(s)  1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail Da					

Application/Control Number: 10/023,071 Page 2

Art Unit: 2654 March 2005

1. Applicant's correspondence filed on 27 October 2004 (amendment) has been received and considered. Claims 1-20 are pending.

## **Claims**

- 2. The previous rejection under 35 U.S.C. § 112, second paragraph, is overcome.
- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-20 are rejected under 35 U.S.C. § 103 as being unpatentable over Ramesh (Language Identification With Embedded Word Models).

As per claim 1, "an electronic device using speech" is taught by his <u>applications in which</u> people are likely to speak certain characteristic words or phrases, page 1887, bottom left:

"defining a set of activation commands" (his teaching that <u>It should be simpler</u>, therefore, to distinguish this small 'restricted domain' subset of language from other languages, than to recognize the language pertaining to any topic, page 1887, top right – this teaches that

Application/Control Number: 10/023,071

Art Unit: 2654

March 2005

Page 3

Language Identification (LID, page 1887, bottom left) will be simplified by defining a smaller

set of words or commands);

"receiving speech input from the user" (inherent in speech recognition);

"recognizing at least one voice command" (suggested by his task-specific

keywords, page 1888, upper left, which could only mean that the user is saying one or more

words in order to command the system to perform a particular task);

"determining whether the recognized voice command is in the set of activation

commands and if so, activating or controlling the electronic device" (his teaching that This

embedded-keyword approach is most useful when LID is needed for a particular restricted-

domain task – this teaches that limiting input speech as keywords for controlling a single device

will be both useful and simpler than vocabularies for controlling multiple devices); and

"setting a language attribute which determines in which language the electronic

device interacts with the user" (his teaching on page 1888, left column where the attributes he

relies upon are The finite state grammar used for identifying the languages is shown in Fig. 1

which is in addition to the attributes of a conventional Hidden Markov Model of the language to

be recognized.)

It is noted that the terminology of Ramesh is not the same as the claim language.

However, reading it in context indicates that it has similar meaning as noted above. The use of

"command" words are considered obvious in view of Ramesh's use of keywords noted above

because any system trained to accept "commands" must treat the command words as the most

important words spoken. Thus, a command is going to be a key (most important) word.

Application/Control Number: 10/023,071 Page 4

Art Unit: 2654 March 2005

Claims 2-20 are rejected under similar arguments as applied above. The teachings of Ramesh appear to encompass the claims as stated. He clearly teaches additional languages on page 1888-1890 where he lists four (English, Mandarin, Japanese and Spanish) used in his experiments. He addresses the unconstrained problem: identify the language spoken by any person, talking about any topic (page 1887, left). He then recognizes that It should be simpler, therefore, to distinguish this small 'restricted-domain' subset of language from other languages, than to recognize the language pertaining to any topic (page 1887, upper right). Thus, he clearly teaches that it will be expected to more easily identify a secondary attribute ("second function") such as "language" (see page 1889 and tables 1-4) by limiting vocabulary words to a subset such as particular "voice commands" as claimed.

The use of multifunction devices is considered trivial since one of ordinary skill in the art would be aware of many such applications for speech recognition. Ramesh states on page 1887, left column the there are several potential applications in which people are likely to speak certain characteristic words or phrases. He then uses a specific example, placing international telephone calls, for instance, people are likely to say words that mean certain things: words such as 'operator', 'help' or 'call' (or the equivalent in their language), and telephone numbers.

The limitations towards "audio and/or visual feedback" are obvious in any recognition system because the absence of feedback to the user would result in that the user would have no idea whether their speech was recognized. Audio feedback is especially obvious in the telephone example used by Ramesh on page 1887. When the user of speech recognition wants "help" or "operator" assistance (page 1887, bottom left), it would be implausible to suggest that the system would not allow any audio feedback to provide such desired assistance.

Application/Control Number: 10/023,071

Art Unit: 2654

It is clear from the reasoning above that it is obvious to train a computer based recognizer in one or more specific applications for interaction with the user in a plurality of languages. The result taught by Ramesh is that <u>performance is significantly better</u> than traditional LID for identifying <u>languages</u> from any speaker on any topic (see page 1890, top right).

Page 5

March 2005

## **Comments on Applicant's Arguments**

- 5. The changes to the claims have been addressed in the rejection above. The support for the rejection is clearly present in the prior art and would be readily apparent to one of ordinary skill in the art of speech signal processing. Therefore, the applicant's arguments to the contrary do not appear to have any basis in fact.
- 6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Application/Control Number: 10/023,071 Page 6

Art Unit: 2654 March 2005

7. Some correspondence may be submitted electronically. See the Office's Internet Web site http://www.uspto.gov for additional information.

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

Mail Stop \_\_\_\_\_ Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Fax phone number for Group 2600 is (703) 872-9306

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644. After 28 March 2005, the examiner's phone number will be (571) 272-7607. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645. After 28 March 2005, the examiner's supervisor's phone number will be (571) 272-7602.

For the Group 2600 receptionist or customer service call (571) 272-2600.

For general questions to the USPTO, you may call 800-786-9199 (IN USA OR CANADA) or 703-308-4357 for assistance from Customer Service Representatives and/or access to the automated information message system. TTY customers can dial 703-305-7785 for customer assistance.

David D. Knepper Primary Examiner Art Unit 2654 March 7, 2005